






Date: Wednesday, 3/14/2007 3:27:10 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : SINGLE MIRROR ASSEMBLY
Job Number : 31208	
Estimate Number : 12277	
P.O. Number : N/A	Part Number : D206558041
This Issue : 3/14/2007 S.O. No. : N/A	Drawing Number : D206-558 / D2065
Prsht Rev. : NC	Project Number : N/A
First Issue : 3/14/2007 Type : MACHINED PARTS	Drawing Revision : C / B1
Previous Run : 28690	Material : N/A
Written By : <u>JA 07.03.14</u>	Due Date : 4/6/2007 Qty: 10 Um: Each
Checked & Approved By : <u>JA 07.03.14</u>	
Comment : Est. F 02.09.19 Re-format; Incorporated D2065 KJ	
Additional Product	
Job Number: 	
Seq. #: 1.0	Machine Or Operation: DC
Description : DOCUMENT CONTROL	
	
Comment: DOCUMENT CONTROL Photocopy bluefile and type labels as per PPP D206-558-041 CHG005	
KS 07.03.23	
Seq. #: 2.0	M304TR0500W035
304 RD Tube .500 x .035W	
	
Comment: Qty.: 1.7500 f(s)/Unit Total: 17.5004 f(s) 304 RD Tube .500 x .035W 19.250 304/316 SS Seamless Tube (Ref QSI 017 4.1.1.2) as per Dwg D2065 using punch Jig DT8012 (M04TR0.500W035) Identify as D2065. Note: 1 end only	
Batch M102958 ③ M102742 ④ M103453 ②	
SB 07/03/20 ⑩	
Seq. #: 3.0	BRAKE NC
NC BRAKE	
	
Comment: NC BRAKE Punch 1/2" OD x .035" Wall AISI	
SB 07/03/20 ⑩	
Seq. #: 4.0	SMALL FAB 1
SMALL & MEDIUM FAB RESOURCE 1	
	
Comment: SMALL & MEDIUM FAB RESOURCE 1 Cut to length as per Dwg D2065 Bend as per Dwg D2065 and template D2065T1 Flatten the end on Hydraulic press using Dt 8545 Drill 00.188" holes as per Dwg D2065 and template D2065 T1 and using Dt 8768 Drill Jig. Deburr.	
FF 07-03-22 ⑪	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 31208

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

07/03/22

11

6.0

POWDER COATING

POWDER COATING



M100700



11x

Comment: POWDER COATING

Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3

m-h

07/03/23

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

m 07/04/12

11

8.0

D2011101

Mirror 6"



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s) 11

Mirror 6"

Pick:

Qty Part Number Description Batch

1 D2011-101 Mirror

B29773 x7

✓

B30376 x4

9.0

D2052

Bracket



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s) 22

Bracket

Pick:

Qty Part Number Description Batch

2 D2052 Bracket

B17216 x10 +11

✓

B14017 x1

10.0

D2054

Bushing - Delrin



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s) 22

Bushing - Delrin

Pick:

Qty Part Number Description Batch

2 D2054 Bushing

B20837 x3

B16711 x8 +11

✓

11.0

D2055

Clamp



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s) 11

Clamp

Pick:

Qty Part Number Description Batch

B16712 x11

✓

m 07/04/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Job Number: 31208

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

1 D2055 Clamp

12.0

D2056

Bell Crank Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 11.0000 Each(s)

Bell Crank Assembly

Pick:

Qty Part Number Description Batch

1 D2056 Bellcrank

B17049 X1

✓

3 26524 X10

13.0

D2057

Plug



Comment: Qty.: 1.0000 Each(s)/Unit Total: 11.0000 Each(s)

Plug

Pick:

Qty Part Number Description Batch

1 D2057 Plug

X11

✓

B25655

14.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 44.0000 Each(s)

Washer

Pick:

Qty Part Number Description Batch

4 AN960JD10 Washer

M103962 X21

✓

M103641 X23

15.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total: 22.0000 Each(s)

Nut

Pick:

Qty Part Number Description

2 MS21042L3 Nut

or MS21042-3

Batch

M102658

X22

X20

✓

16.0

MS27039118

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total: 22.0000 Each(s)

Screw

Pick:

Qty Part Number Description

2 MS27039-1-18 Screw

Batch

M12307

X22

X20

✓

ml 07/04/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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Job Number: 31208

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



PTO

Comment: SMALL & MEDIUM FAB RESOURCE 1
Assemble as per Dwg D206-558

07/04/17

x9

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

19.0

D2053

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)
Bracket
Pick: Packing Kit
Qty Part Number Description Batch
1 D2053 Bracket B16710 ✓

(-1 mirror)

20.0

D2067

Connector



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)
Connector
Pick: Packing Kit
Qty Part Number Description Batch
1 D2067 Connector B20875 ✓ B21322 ✓ B31221 ✓

5

3

2 *

21.0

D2071

Cable Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)
Cable Assembly
Pick: Packing Kit
Qty Part Number Description Batch
1 D2071 Cable B30342 ✓

*

22.0

AN34A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)
Bolt
Pick: Packing Kit
Qty Part Number Description Batch
4 AN3-4A Bolt M103287 ✓

7/4/20 SQ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 77 Date: 07/04/16
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
07/04/16	17	Two arms arms was mixed it was .049 wall So plug did not fit Scrap other parts when tried to take them off.	<i>[Signature]</i> QS1012	Scrap one two D206-558-04/ No replace Save and put back store 4X D2052 Bracket 4X MS27039/18 Screws 4X AN9603510 Washers 4X NS21042L3 Nut 2X D2011-101 mirrors	<i>[Signature]</i> 07/04/16	<i>[Signature]</i> 07/04/16	<i>[Signature]</i> QS1012	<i>[Signature]</i> 07/04/16
			<i>[Signature]</i> QS1012			<i>[Signature]</i> 07/04/16	<i>[Signature]</i> QS1012	<i>[Signature]</i> 07/04/16
07/04/17	17	Because I mixed D2055 position. I re-do the installation. Scrap 8X D2055	<i>[Signature]</i> QS1012	Replace 8X D2055 by new one	<i>[Signature]</i> 07/04/17	<i>[Signature]</i> 07/04/17	<i>[Signature]</i> QS1012	<i>[Signature]</i> 07/04/17

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Job Number: 31208

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

23.0

AN5261032R9

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Screw

Pick: Packing Kit

Qty Part Number Description Batch

4 AN526-1032R9 Screw

or AN526C1032R9

M104189 ✓

24.0

MS21042L3

Nut



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Nut

Batch:

M103585 ✓

25.0

AN960JD10L

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: 40.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number Description Batch

4 AN960JD10L Washer

M101291 ✓

26.0

MS21919DG5

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total: 20.0000 Each(s)

Clamp

Pick: Packing Kit

Qty Part Number Description Batch

2 MS21919DG5 Clamp

or MS21919WDG5

M103926 ✓

27.0

MS354899

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total: 10.0000 Each(s)

Grommet

Pick: Packing Kit

Qty Part Number Description Batch

1 MS35489-9 Grommet

M9619 ✓

7/4/20 SQ

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 31208

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

28.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



u 07.04.23



Comment: INSPECT 100% KITS FOR COMPLETENESS

07/4/20 (P)

29.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: NEV F

07/4/23 (9) SP

30.0

QC21

FINAL INSPECTION W/O RELEASE



(9)

Comment: FINAL INSPECTION W/O RELEASE

07/04/24

Job Completion



u 07.04.24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill $\varnothing 0.125"$ (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to $\varnothing 0.563"$ (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped

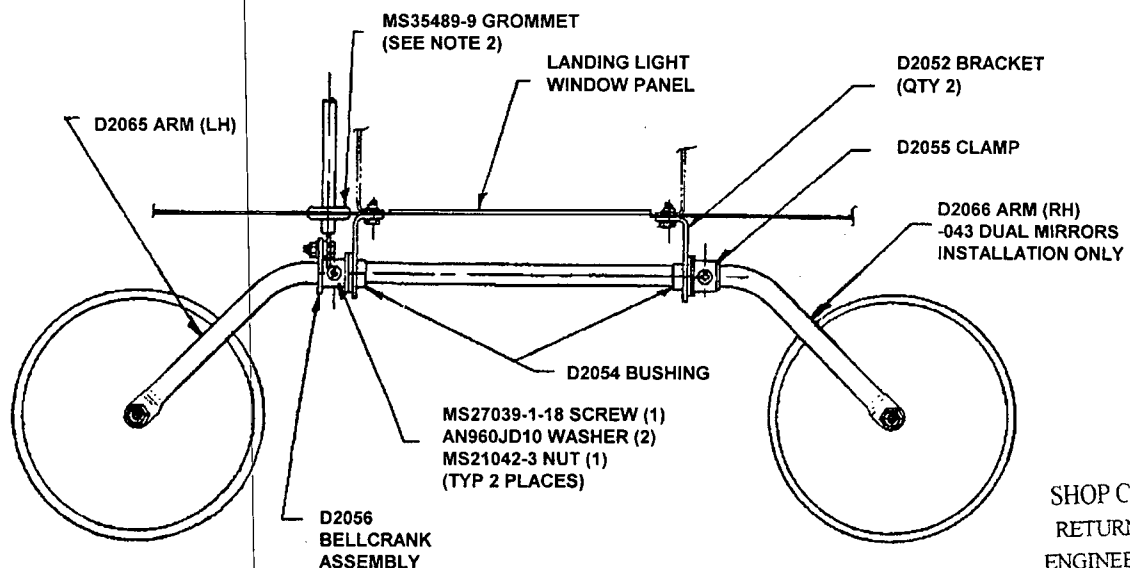


Figure 2: – View A: Looking Aft.
(D206-558-043 Mirror Shown)

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WORK ORDER
NO. 31208

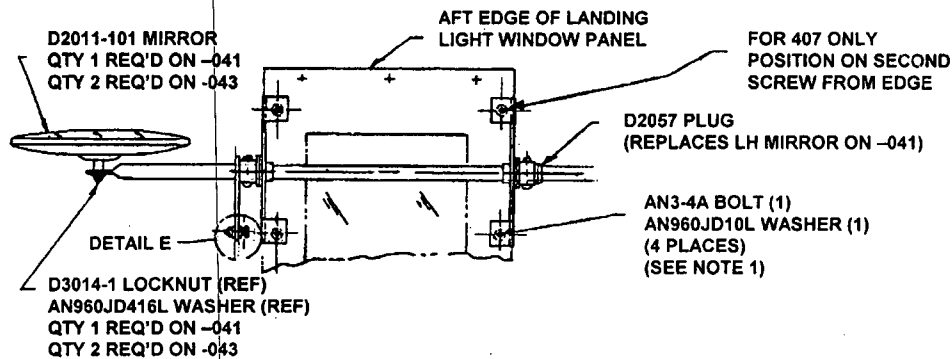


Figure 3: - View C: Looking Down on Mirror Installation
(D206-558-041 Mirror Shown)

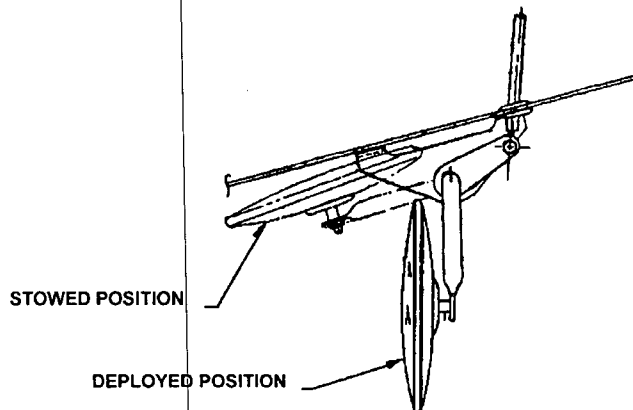


Figure 4: - Detail D: Looking from Side on Mirror Installation
(D206-558-041/-043 Mirror Shown)

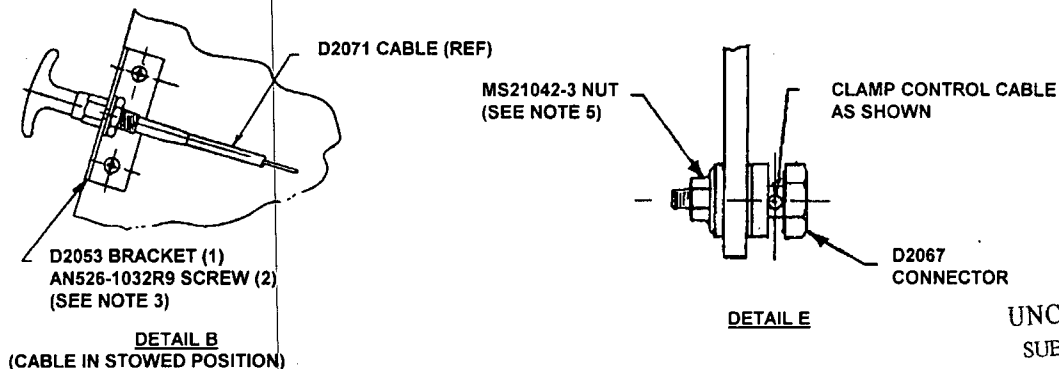


Figure 5: - Details B and E on Mirror Installation
(D206-558-041/-043 Mirror Shown)

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NO. 31208

4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

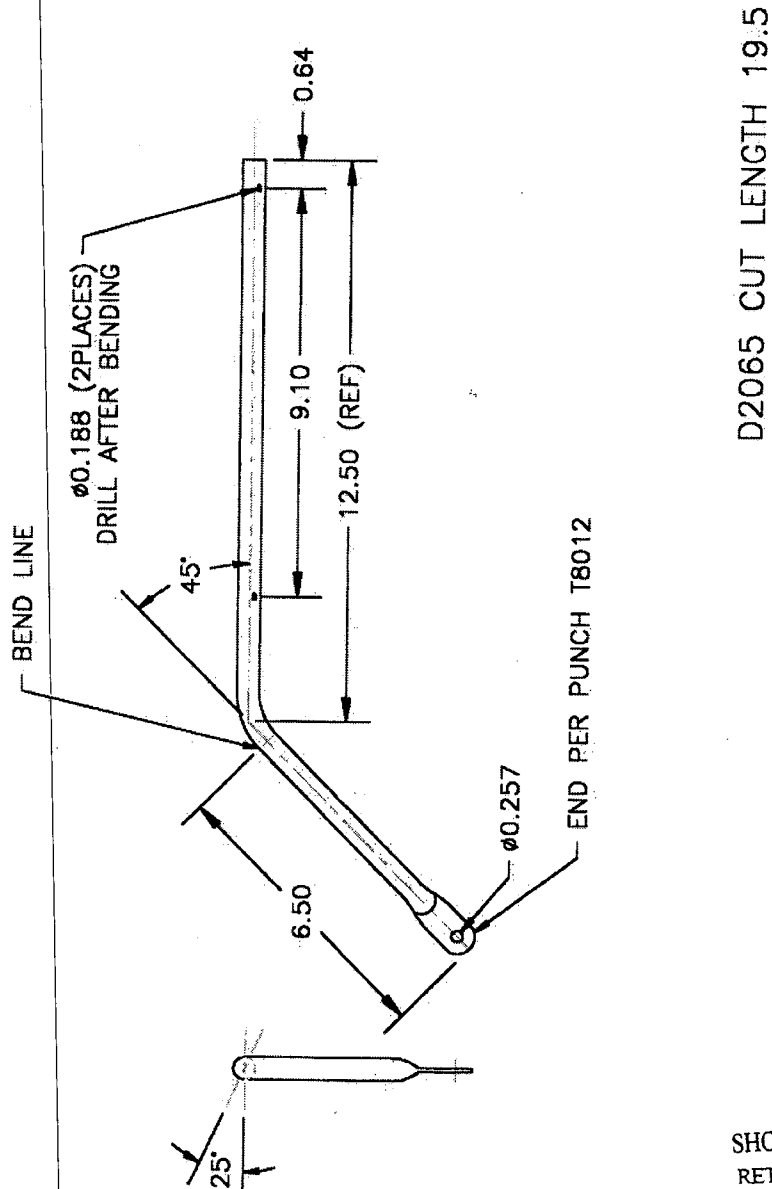
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WORK ORDER
NO. 31208

DART



DESIGN	DRAWN BY	DART AEROSPACE LTD VICTORIA INTERNATIONAL AIRPORT, CANADA	
B WILLIAMS	B WILLIAMS	DRAWING NO.	REV. B
CHECKED	APPROVED	D2065	SHEET 1 OF 1
DATE	TITLE	ARM	SCALE
92.03.12			1:4
B	96.02.06	RE-DESIGN	
BI	02.03.25	ADD FINISH	

RELEASED
96/11/14 Bw



D2065 CUT LENGTH 19.5

MATERIAL: 304/316 SS 1/2 OD X 0.035 WALL
FINISH: POWDER COAT. BLACK SANDTEX (4.3.5.F) PER
DART Q31 Q35 4.3.5.F

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WORK ORDER
NO. 31208

DART Aerospace Ltd

CUSTOMER RETURN

REFERENCE ONLY #R 557

Initiator: JEAN KERR
 Company: SARASOTA County Sheriff's Dept
CSAR01
 Phone No. 914-486-2644

Date: May 2/07
 Invoice # 3996
 Order Entry # 3541

Attach Copy of DHS Return Authorization # 250

Reason for return: Should have been a dual mirror - Not a single replacement order ISSUED NIC

Receiving:

Date Received: 8/01/30 Freight Company: UAS Prepaid Collect

#	Part #	Batch #	Description	Distribute to QC	
1	D205-563-041 <u>D206-558-041</u>	31208 <u>331208</u>	<u>CARGO Mirror ASS'</u> <u>Single mirror</u>	Advise QA	Date:
				<u>D462</u>	<u>8/01/30</u>

Condition of packaging: Good Photograph required: yes ☒ no

Paperwork attached: P/S ☒ Invoice ☐ ARC ☐ Docs ☐ Other ☐

QC:

Quarantine: Location: Condition of Part: good & un-used

Inspect: Initial:

#	Part #	Batch #	QC Comments	QC Approval		Scrap
1	<u>D206-558-041</u>	31208 <u>331208</u>	<u>wrong P/N on the above, and the</u> <u>DHS Return Authorization.</u> <u>DHS RA will have to be revised.</u> <u>Return to stock as per W/O</u>	Initial	W/O #	
				<u> </u>	<u>37654</u>	
				<u> </u>	<u>37304</u>	

QA Coordinator:

Advise GM as to findings: Initial: Date:

Comments:

Issue credit: yes ☐ no ☐

GM Approval:

Date:

Invoice Amount:
 Less Replacement:
 Restock Fee:
 Freight:
 Net Credit:
 DHS ☐ Customer ☐

QA: Enter into Q-Pulse with reason for return & File original. Signed: Date:

Copy of Customer Return to stay with work orders and another copy to be filed with customer credit